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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,678	02/07/2001	Robb Richard Gardner	7970M	4103

27752 7590 06/20/2003

THE PROCTER & GAMBLE COMPANY
INTELLECTUAL PROPERTY DIVISION
WINTON HILL TECHNICAL CENTER - BOX 161
6110 CENTER HILL AVENUE
CINCINNATI, OH 45224

EXAMINER

SALVATORE, LYNDIA

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 06/20/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,678

Applicant(s)

GARDNER ET AL.

Examiner

Lynda M Salvatore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Response to Amendment***

1. Applicant's amendment, Paper No. 8, has been entered. Claims 1,10,13,23, and 24 have been amended as requested. Applicant's amendments are found sufficient to overcome the 35 U.S.C. 112, second paragraph rejections as set forth in section 3 of the last Office Action. As such these rejections are withdrawn. Applicant's amendments and accompanying remarks with respect to the 102(b)/103(a) and 103(a) rejections set forth in sections 6 and 7 of the last Office Action have been fully considered but are not found persuasive of patentability for reasons set forth herein below.

Response to Arguments***Claim Rejections - 35 USC § 102/103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-4,7,8, 12, and 15-24 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takumi, Japanese Publication 05-059664, as set forth in the last Office Action.

Applicant has amended claims 1,23, and 24 to further clarify that the "enhanced" benefits exhibited by the treated fabric substrate recited in said claims are compared to untreated fabrics. The Applicant argues that Takumi fails to teach treating a fabric substrate with a composition comprising formaldehyde, polyethylene glycol having a molecular weight of from about 700gm/mol to about 250 gm/mol, and an acid catalyst, but rather sequential steps of treatment(Applicant's Response, Page, 8). The Applicant further argues that wherein the

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polyhydric alcohol treatment is followed by exposure to formaldehyde vapor results in differing degrees of formaldehyde crosslinking and that Takumi teaches suppressing the formaldehyde to a low amount. As such, the Applicant asserts that it cannot be assumed that the treated fabrics of Takumi will have the presently claimed "enhanced benefits" of durable press, hand feel, anti-abrasion, anti-shrinking, and anti-yellowing (Applicant's Response, Page 8).

With regard to Applicant's argument that Takumi fails to teach a composition comprising formaldehyde, polyethylene glycol having a molecular weight of from about 700gm/mol to about 250 gm/mol, and an acid catalyst is found to be unpersuasive on the grounds that it is the position of the Examiner that final product of Takumi contains all of the composition elements. Recall, that the fiber finishing method of Takumi includes the steps of immersing a cellulosic fabric in a solution of polyethylene glycol having a molecular weight ranging from 90-5000 gm/mol, drying said fabric, exposing said fabric to formaldehyde vapor in the presence of a catalyst such as sulfur acid gas, and heat curing (Abstract and Section 0009). The amount of polyethylene glycol used may range from .1 to 10 weight percent. With regard to Applicant's argument that Takumi teaches suppressing the amount of formaldehyde to a low level, the Examiner asserts that the Applicant is only claiming a composition not the amounts of each constituent used or present in the final product structure. Thus, since the treated fabric of Takumi is said to have good anti-shrinking, permanent press, an outstanding wash and wear, and a good flexible feeling, the Examiner fails to see a difference in the final product structure of the instant invention and treated fabric of Takumi. Given these "improvements" of Takumi and the lack of evidence to the contrary the Examiner maintains that Takumi teaches the instantly claimed product, only differing in that it was produced via a different process. In response to the

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Applicant's argument that it cannot be assumed that the treated fabrics of Takumi will have the presently claimed durable press, hand feel, anti-abrasion, anti-shrinking, and anti-yellowing ratings, the Examiner asserts that the fabric of Takumi must inherently possess these characteristics, since it discloses "improvements" and the claims fail to quantify the "improvements" enjoyed by the instant claims. To reiterate, Support for said presumption is found in the use of like materials (i.e., formaldehyde, polyethylene glycol of a specific molecular weight, and an acid catalyst) and in the use of like processes (i.e., method of treating a fabric substrate with said materials and followed by heat curing), which would result in the claimed property. The burden is shifted upon the Applicant to evidence how the presently claimed composition treated fabric is patently distinguishable over the sequentially treated fabric of Takumi.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 5,6,9-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Takumi, Japanese Publication 05-059664 as applied to claim above 1, and further in view of Payet, WO 99/58758, as set forth in the last Office Action.

The Applicant argues that since Takumi teaches exposing the fabric to formaldehyde vapor in the in the presence of a catalyst such as sulfur acid gas and heat curing one of ordinary skill in the art would not look to Payet reference to use a liquid formaldehyde composition. Specifically, the Applicant asserts that such a combination of references would contradict the

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teachings of Takumi, which teaches suppressing the amount of formaldehyde in the final product whereas a liquid formaldehyde treatment would actually result in a fabric with a greater amount of formaldehyde. This argument is not found persuasive on the grounds Payet teaches using less formaldehyde than other known processes and further teaches removing residual formaldehyde to concentrations as low as 200ppm in view of consumer concerns about the presence of formaldehyde in purchased garments (Page 8, 13-24). To reiterate, Payet discloses a process for making cellulosic fiber containing fabrics wrinkle free by treating the fabric with solution comprising formaldehyde, a catalyst, and an silicone elastomer. The amount of formaldehyde may range from 3 to 5 weight percent (Page 10, 19-30). The amount of catalyst can be up to about 2 weight percent (Page 10, 19-30). The preferred catalyst is magnesium chloride with citric acid (Page 11, 7-10). Payet teaches formaldehyde imparts durable anti-wrinkling properties to cellulosic fiber containing fabrics (Page 1, 26-31). Therefore, Applicant's argument with respect to the contradiction in teachings is not found sufficient to overcome the motivation set forth by the Examiner to use either a liquid or vapor formaldehyde treatment since both references are primarily concerned with keeping formaldehyde levels low in the final product and both treated fabrics exhibit the presently claimed "enhanced benefits". Additionally, Payet was not relied upon to teach a treating method, but rather a suitable catalyst, which appears to be irrelevant to the phase state of the formaldehyde.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

ls
June 16, 2003


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700